WHAT IS CLAIMED IS:

1. A method of reducing an electrostatic charge on a substrate during a plasma enhanced chemical vapor deposition process, comprising the step of:

depositing a conductive layer onto a top surface of a susceptor support plate disposed within a deposition chamber wherein the conductive layer dissipates the electrostatic charge on the bottom surface of the substrate during a plasma enhanced chemical vapor deposition process.

2. The method of claim 1, wherein the depositing of the conductive layer onto the top surface of the susceptor support plate comprises the steps of:

introducing a silicon-containing gas into the deposition chamber; and

igniting the silicon-containing gas under conditions such that an amorphous silicon conductive layer or a microcrystal silicon conductive layer is deposited onto the top surface of the susceptor support plate.

3. The method of claim 2, wherein the silicon-containing gas is selected from the group consisting of silane, disilane, methylsilane, and trimethyl-silane.

4. The method of claim 2, further comprising introducing a mixture of phosphine and hydrogen gas into the deposition chamber such that a phosphine-doped amorphous silicon conductive layer or microcrystal silicon conductive layer is deposited.

5. The method of claim 4, wherein the phosphine and hydrogen gas mixture comprises from about 0.5% to about 1% phosphine.

6. The method of claim 5, wherein the phosphine and hydrogen gas mixture comprises about 0.5% phosphine.

7. The method of claim 2, wherein the conditions comprise a pressure of about 0.3 Torr to about 10 Torr.

8. The method of claim 7, wherein the conditions comprise a pressure of about 1.3 Torr.

9. The method of claim 2, wherein the conditions comprise a radio-frequency power from about 300 W to about 900 W.

10. The method of claim 9, wherein the conditions comprise a radio-frequency power from about 300 W to about 400 W.

11. The method of claim 9, wherein the conditions comprise a radio-frequency power of about 900 W.

12. The method of claim 1, wherein the substrate is an insulative non-metallic material.

13. The method of claim 12, wherein the insulative non-metallic material is an oxide-based material or a plastic material.

14. The method of claim 13, wherein the oxide-based material comprises glass, quartz or a ceramic material.

15. The method of claim 1, wherein the depositing of the conductive layer onto the top surface of the susceptor support plate comprises the steps of:

introducing silane into the deposition chamber;

introducing about 0.5% to about 1% phosphine in hydrogen gas into the deposition chamber; and

igniting the gases with an radio-frequency power from about 300W to about 900W at a pressure of about 0.3 Torr to about 10 Torr such that a phosphine-doped amorphous silicon conductive layer or a phosphine-doped microcrystal silicon conductive layer is deposited onto the top surface of the susceptor support plate.

16. A method of reducing an electrostatic charge on an oxide-based substrate during a plasma enhanced chemical vapor deposition process, comprising the steps of:

introducing silane into the deposition chamber;

introducing from about 0.5% to about 1% phosphine in hydrogen gas into the deposition chamber;

igniting the gases with an radio-frequency power of about 300W to about 900W at a pressure of about 0.3 Torr to about 10 Torr; and

depositing a phosphine-doped amorphous silicon conductive layer or a phosphine-doped microcrystal silicon conductive layer onto a top surface of a susceptor support plate;

wherein the phosphine-doped amorphous silicon conductive layer or the phosphine-doped microcrystal silicon conductive layer dissipates the electrostatic charge on the bottom surface of the oxide-based substrate during a plasma enhanced chemical vapor deposition process.

17. The method of claim 16, wherein the oxide-based substrate is glass, quartz or ceramic.

18. A method of depositing a film of material upon a substrate during a plasma enhanced chemical vapor deposition process comprising the steps of:

introducing a silicon-containing gas into the deposition chamber;

igniting the gas under conditions such that a plasma is formed in the deposition chamber;

depositing an amorphous silicon conductive layer or a microcrystal silicon conductive layer onto a top surface of a susceptor support plate;

positioning the substrate on the amorphous silicon conductive layer or the microcrystal silicon conductive layer such that an electrostatic charge on the bottom surface of the substrate induced during a subsequent plasma enhanced chemical vapor deposition process is dissipated through the amorphous silicon conductive layer or the microcrystal silicon conductive layer; and

subjecting the top surface of the substrate to a plasma enhanced chemical vapor deposition process thereby depositing the film of material onto the substrate.

19. The method of claim 18, wherein the silicon-containing gas is selected from the group consisting of silane, disilane, methylsilane and trimethylsilane.

20. The method of claim 18, further comprising introducing a mixture of phosphine and hydrogen gas into the

deposition chamber such that a phosphine-doped amorphous silicon conductive layer or a phosphine-doped microcrystal silicon conductive layer is deposited.

21. The method of claim 20, wherein the phosphine and hydrogen gas mixture comprises from about 0.5% to about 1.0% phosphine.

22. The method of claim 18, wherein the conditions comprise a pressure of about 0.3 Torr to about 10 Torr.

23. The method of claim 18, wherein the conditions comprise a radio-frequency power from about 300 W to about 900 W.

24. The method of claim 23, wherein the conditions comprise a radio-frequency power from about 300 W to about 400 W.

25. The method of claim 23, wherein the conditions comprise a radio-frequency power of about 900 W.

26. The method of claim 18, wherein the substrate is an insulative non-metallic material.

27. The method of claim 26, wherein the insulative non-metallic material is an oxide-based material or a plastic material.

28. The method of claim 27, wherein the oxide-based material comprises glass,quartz or a ceramic material.

29. A method of depositing a film of material upon an oxide-based substrate during a plasma enhanced chemical vapor deposition process comprising the steps of:

introducing silane into the deposition chamber;

introducing from about 0.5% to about 1% phosphine in hydrogen gas into the deposition chamber;

igniting the gases with an radio-frequency power of about 300W to about 900W at a pressure of about 0.3 Torr to about 10 Torr;

depositing a phosphine-doped amorphous silicon conductive layer or a phosphine-doped microcrystal silicon conductive layer onto a top surface of a susceptor support plate;

positioning the oxide-based substrate on the phosphine-doped amorphous silicon conductive layer or the phosphine-doped microcrystal silicon conductive layer such that an electrostatic charge on the bottom surface of the oxide-based

substrate induced during subsequent plasma enhanced chemical vapor deposition is dissipated through the phosphine-doped amorphous silicon conductive layer or the phosphine-doped microcrystal silicon conductive layer; and

subjecting the top surface of the oxide-based substrate to a plasma enhanced chemical vapor deposition process thereby depositing the film of material onto the oxide-based substrate.

30. The method of claim 29, wherein the oxide-based substrate comprises glass, quartz or a ceramic material.

31. A conductive susceptor for use in a deposition chamber for depositing a film of material onto a substrate during a plasma enhanced chemical vapor deposition process, the susceptor comprising:

a support plate mounted on a shaft, the support plate having an upper surface adapted to support a substrate wherein the upper surface has a conductive material disposed thereon and a lower surface connected to the shaft and interfacing with the shaft.

32. The conductive susceptor of claim 31, wherein the substrate is an insulative non-metallic material.

33. The conductive susceptor of claim 32, wherein the insulative non-metallic material is an oxide-based material or a plastic material.

34. The conductive susceptor of claim 33, wherein the oxide-based material comprises glass, quartz or a ceramic material.

35. The conductive susceptor of claim 31, wherein the conductive material is an amorphous silicon layer or a microcrystal silicon layer wherein either layer is optionally doped with phosphine; and

wherein any one of the silicon conductive layers is deposited onto the upper surface of the support plate by plasma enhanced chemical vapor deposition.